

SURFACE-MOUNT TUNE-UP WOOFER SYSTEM

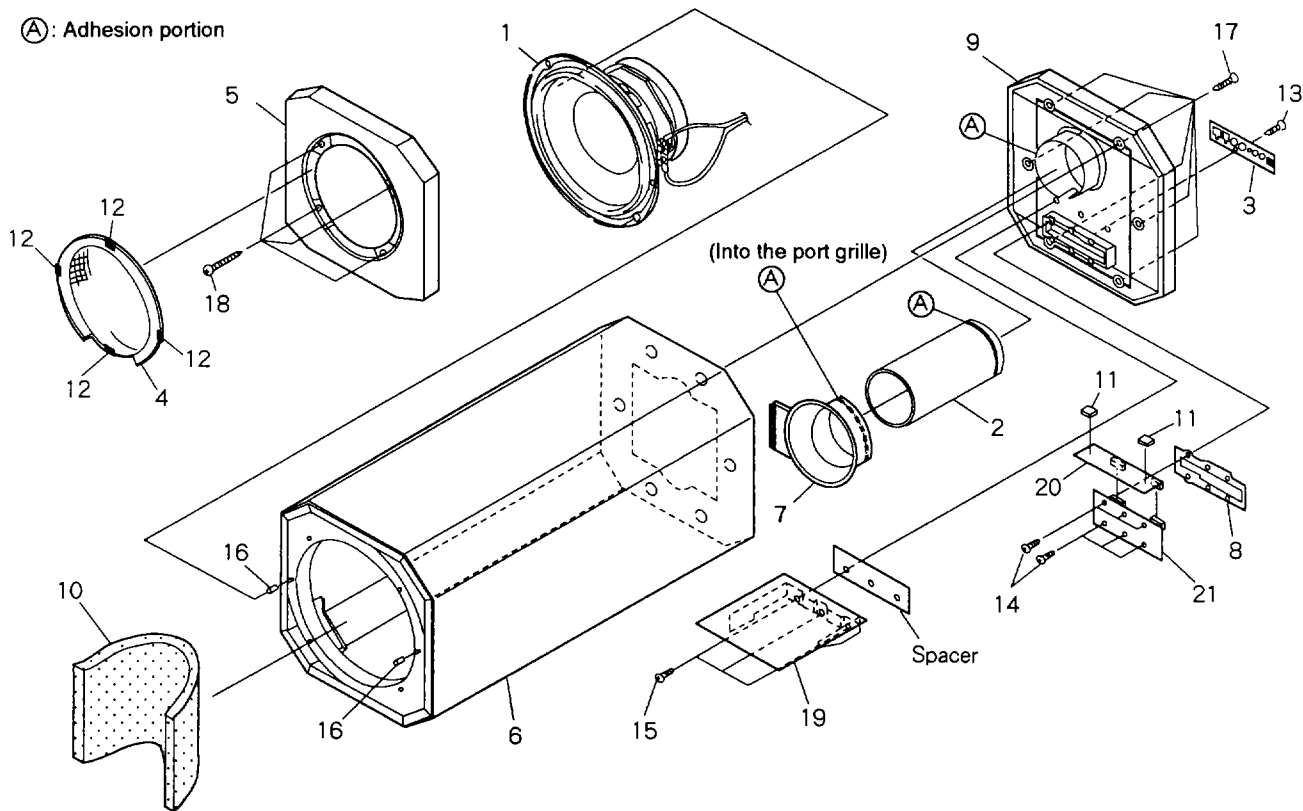
TS-WX65A

Type	Model	Power Requirement	Remarks
	TS-WX65A		
XL/UC	○	Not supplied	
XL/ES	○	Not supplied	

4. EXPLODED VIEW AND PARTS LIST

NOTES:
● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

Mark	No.	Description	Part No.	Remark	Mark	No.	Description	Part No.	Remark
	1	SPEAKER	16-1131AZ/XL	×1		11	Packing	TED1283	×2
	2	Port	TCC1013	×1		12	Adhesive	TEB-084	×4
	3	Front Panel	TNS1012	×1		13	Screw	BPZ26P060FZK	×1
	4	Punching Net	TLL1377	×1		14	Screw	BBZ30P080FMC	×6
	5	Front Grille	TLM1328	×1		15	Screw	PMA40P060FMC	×3
	6	Cabinet	TMM1040	×1		16	Spring Pin	Z-HP2. 5-15FBT	×2
	7	Port Ring	TNL1014	×1		17	Screw	BNC40P250FZK	×6
	8	Gasket	TEB1237	×1		18	Screw	BNC40P400FZK	×4
	9	Heat Sink	TNA1375	×1		19	POWER AMP UNIT	TWH1015	×1
	10	Sound Absorbent	TED1197	×1		20	CONTROL AMP UNIT	TWG1008	×1
						21	SWITCH BOARD UNIT	TWS1023	×1



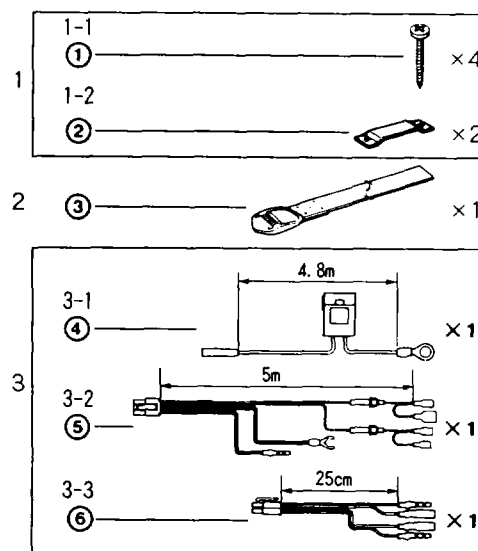
5. PARTS LIST OF PACKING

NOTES:

● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

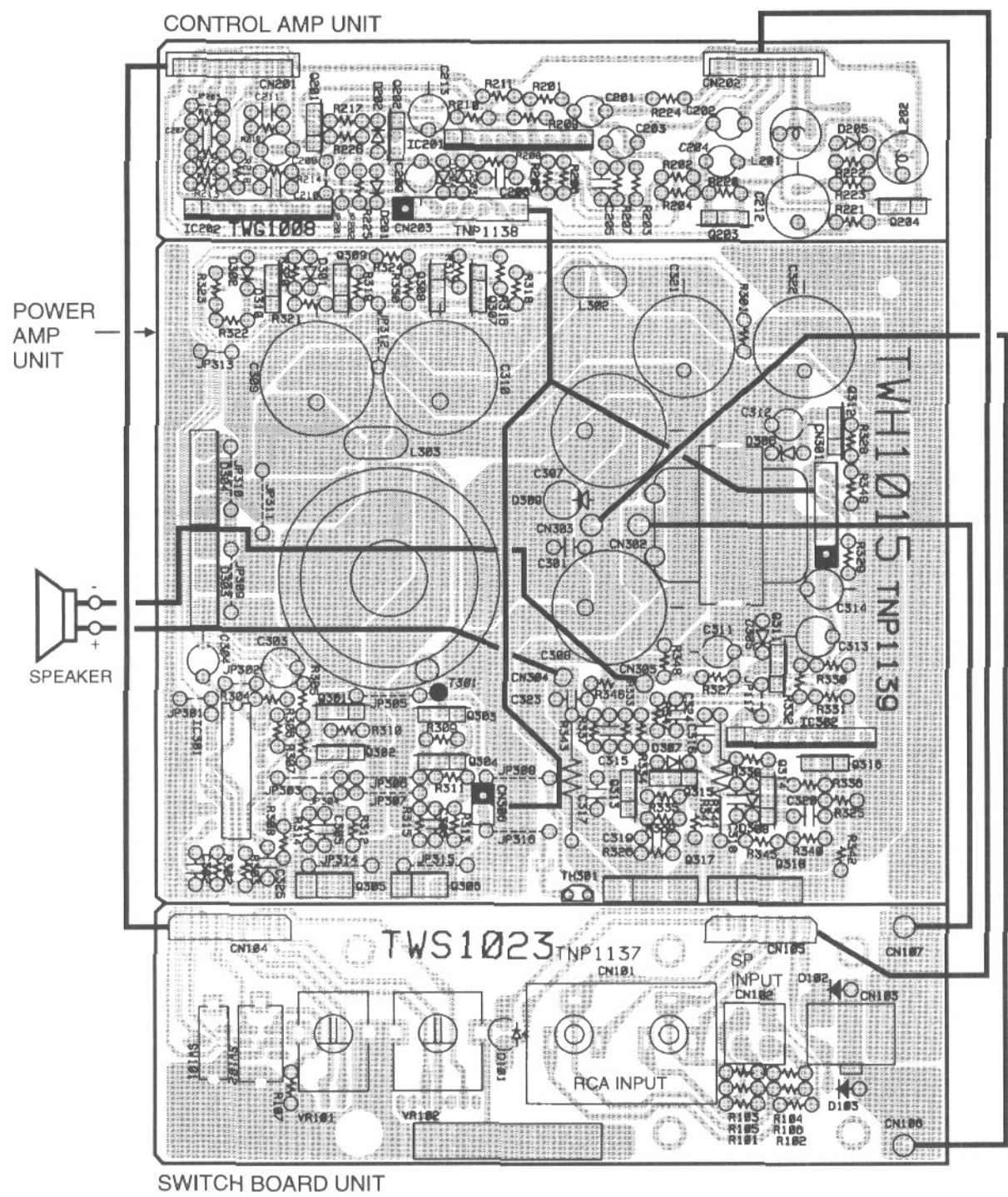
Mark	No.	Description	Part No.	Remark
	1	Installation Kit	TEA1474	×1
NSP	1-1	Screw	BNC40P250FZK	×4
NSP	1-2	Fitting Metal	TNA1220	×2
	2	Belt Assy	TXH1419	×1
	3	Cord Assy	TXH1471	×1
NSP	3-1	Cord	TDC2033	×1
NSP	3-2	Cord	TDC2031	×1
NSP	3-3	Cord	TDC2032	×1
		Operating Instructions (XL/UC)	TRD1090	×1
		Operating Instructions (XL/ES)	TRD1096	×1
		Packing Case (XL/UC)	THF2633	×1
		Packing Case (XL/ES)	THF2634	×1
		Styrofoam Protector	TEC1786	One pair

● PARTS INCLUDED



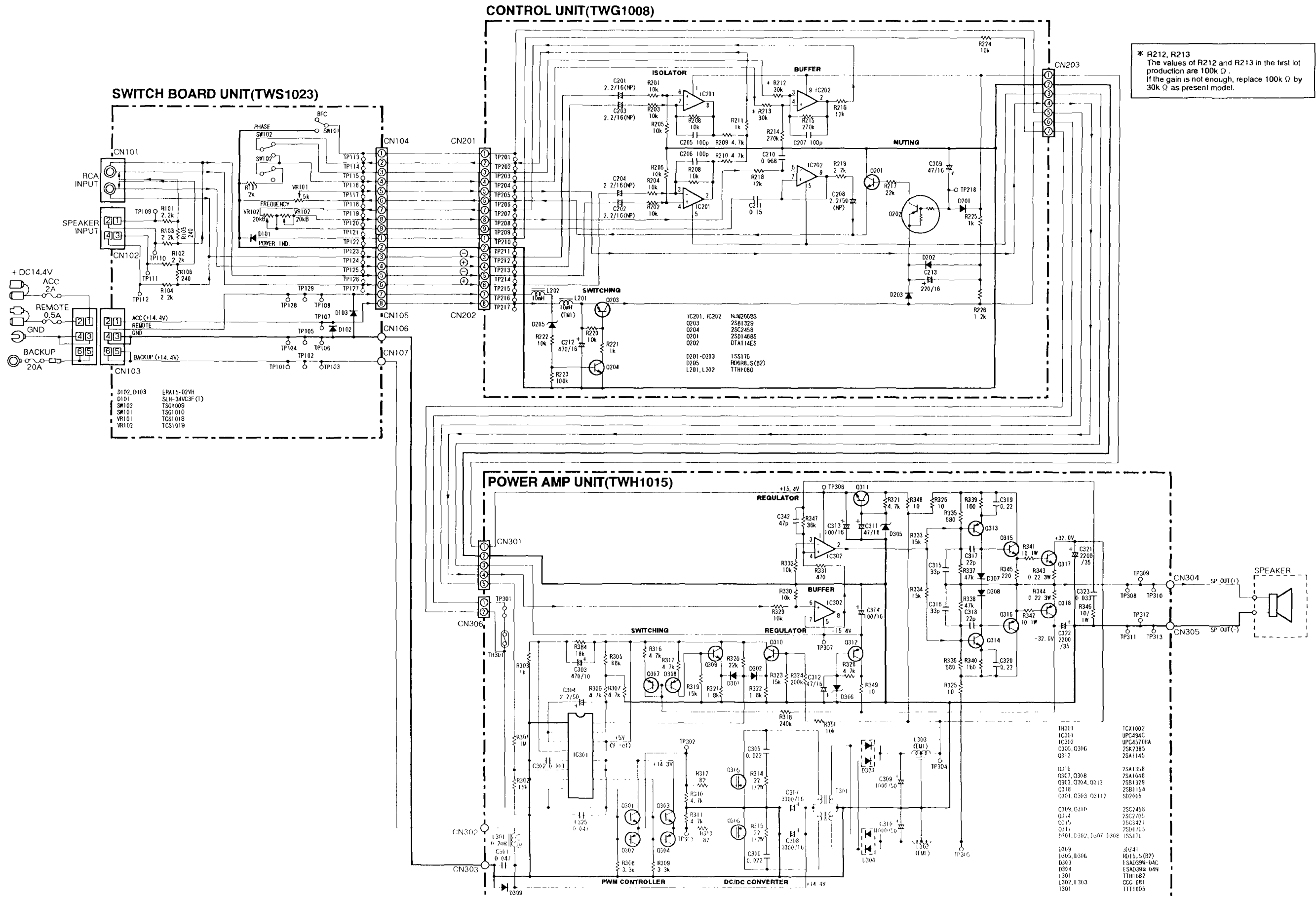
6. AMP UNIT

6.1 PCB DIAGRAM



•This diagram is viewed from the mounted parts side.

6.2 SCHEMATIC DIAGRAM



7. PCB PARTS LIST

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "☉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.
Ex.1 When there are 2 effective digits(any digit apart from 0), such as 560 ohm and 47k ohm(tolerance is shown by J=5%, and K=10%).
 $560\ \Omega \rightarrow 56 \times 10^1 \rightarrow 561 \dots\dots\dots RD1/4PU \begin{array}{|c|c|c|} \hline 5 & 6 & 1 \\ \hline \end{array} J$
 $47k\ \Omega \rightarrow 47 \times 10^3 \rightarrow 473 \dots\dots\dots RD1/4PU \begin{array}{|c|c|c|} \hline 4 & 7 & 3 \\ \hline \end{array} J$
 $0.5\ \Omega \rightarrow 0R5 \dots\dots\dots RN2H \begin{array}{|c|c|c|} \hline 0 & R & 5 \\ \hline \end{array} K$
 $1\ \Omega \rightarrow 1R0 \dots\dots\dots RS1P \begin{array}{|c|c|c|} \hline 1 & R & 0 \\ \hline \end{array} K$
Ex.2 When there are 3 effective digits(such as in high precision metal film resistors).
 $5.62k\ \Omega \rightarrow 562 \times 10^1 \rightarrow 5621 \dots\dots\dots RN1/4PC \begin{array}{|c|c|c|c|} \hline 5 & 6 & 2 & 1 \\ \hline \end{array} F$

Mark	No.	Description	Part No.
LIST OF UNIT			

NSP	AMP UNIT	TWX1014
	—POWER AMP UNIT	TWH1015
	—CONTROL AMP UNIT	TWG1008
	—SWITCH BOARD UNIT	TWS1023

POWER AMP UNIT

SEMICONDUCTORS

TH301	TCX1002
IC301	UPC494C
IC302	UPC4570HA
Q305, Q306	2SK2385
Q313	2SA1145
Q316	2SA1358
Q307, Q308	2SA1048
Q302, Q304, Q312	2SB1329
Q318	2SB1154
Q301, Q303, Q311	2SD2005
Q309, Q310	2SC2458
Q314	2SC2705
Q315	2SC3421
Q317	2SD1705
D301, D302, D307, D308	1SS176
D309	3DZ41
D305, D306	RD16JS(B2)
D303	ESAD39M-04C
D304	ESAD39M-04N

COILS

L301	(0.2mH)EMI	TTH1082
L302, L303	EMI	CCG-081

TRANSFORMER

T301	TTT1005
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Mark	No.	Description	Part No.
CAPACITORS			

C302	CQMA102J50
C305, C306	CFTNA223J50
C319, C320	CFTNA224J50
C323	CFTNA333J50
C317, C318	CCCSL220J50
C315, C316	CCCSL330J50
C324	CCCSL470J50
C301, C325	CGCYX473K25
C313, C314	CEAS101M16
C309, C310 (1000 μ F/35V)	TCH1227
C321, C322 (2200 μ F/35V)	TCH1229
C304	CEAS2R2M50
C311, C312	CEAS470M16
C303	CEAS471M10
C307, C308 (3300 μ F/16V)	TCH1230

RESISTORS

R341, R342, R346	RS1V100JL
R343, R344	RS3LMFR22J
Other resistors:	RD1/4PU□□□□J

OTHERS

	BRACKET	TNA1376
CN301, CN306	CORD	TDC2034
CN302	CORD	TDC2035
CN304, CN305	CORD	TDC2036
CN303	CORD	TDC2039

CONTROL AMP UNIT

SEMICONDUCTORS

IC201, IC202	NJM2068S
Q203	2SB1329
Q204	2SC2458
Q201	2SD1468S
Q202	DTA114ES
D201-D203	1SS176
D205	RD6R8JS(B2)

COILS

L201, L202	(10mH)EMI	TTH1080
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Mark	No.	Description	Part No.
CAPACITORS			
	C211		CFTNA154J50
	C210		CFTNA683J50
	C205-C207		CKCYB101K50
	C209		CEAS470M16
	C212		CEAS471M16
	C201-C204, C208		CEA2R2M50NPLL
	C213	(220 μ F/16V)	TCH1219
RESISTORS			
	All resistors		RD1/4PU□□□J
OTHERS			
	CN202	CONNECTOR	TKS1066
	CN201	CONNECTOR	TKS1067
SWITCH BOARD UNIT			
SEMICONDUCTORS			
	D102, D103		ERA15-02VH
	D101		SLH-34VC3F(T)
SWITCHES			
	SW102		TSG1009
	SW101		TSG1010
RESISTORS			
	VR101	(5k Ω)	TCS1018
	VR102	(20k Ω)	TCS1019
	Other resistors		RD1/4PU□□□J
OTHERS			
	CN201	RCA JACK	TKS1061
	CN103	CONNECTOR	TKS1062
	CN102	CONNECTOR	TKS1063
	CN105	CONNECTOR	TKS1064
	CN106	CONNECTOR	TKS1065
	LED SPACER		MNK1123